

INTEROFFICE MEMORANDUM

7-6



Date: June 16, 2004 (Updated)
To: Wendy Walsh, Case Manager
Reference: Double Creek Village – Tract 2
 C14-04-0018
 Traffic Impact Analysis

The following are staff comments on the traffic impact analysis for the proposed Double Creek Village Tract 2 development.

TRIP GENERATION

Double Creek Village Tract 2 is a 27.964-acre multi-use development located at the northeast quadrant of FM 1626 and South First St. The proposed development plans include a mix of retail and restaurant, and the proposed completion of the project will be expected in the year 2005. Wilber Smith Associates prepared the TIA for the project in February, 2004.

The TIA assumed that the proposed development would consist of the following land uses:

Supermarket	80,000 s.f.
Shopping Center	111,100 s.f.
Fast Food with Drive-thru Window	10,000 s.f.
High Turnover Sit-Down Restaurant	11,000 s.f.
Specialty Retail	17,500 s.f.

Based on the standard trip generation rates established by the Institute of Transportation Engineers (ITE), the development will generate approximately 20,340 unadjusted daily trips (ADT). Of these, 1,056 trips will occur during the morning peak-hour and 1,789 will occur in the evening peak-hour.

Below, Table 1 summarizes the adjusted site trips by subtracting the internal capture and pass-by trips from the unadjusted trips.

Land Use	Square feet	ADT	AM Peak		PM Peak	
			Enter	Exit	Enter	Exit
Supermarket	80,000	4,498	111	56	183	168
Shopping Center	111,100	3,579	63	37	136	152
Fast-Food Restaurants	10,000	2,778	166	154	92	78
Sit-Down Restaurants	13,000	1,336	70	64	62	34
Specialty Retail	17,500	620	0	0	16	20
Total	231,600	12,811	410	311	489	452

ATTACHMENT
A

ASSUMPTIONS

A composite growth rate was developed using the adjacent roadways traffic volumes, which were provided by the Transportation Planning Programming Division of the Texas Department of Transportation. Traffic volumes from 1998 to 2001 yielded a 5.7% average annual growth rate. With the extension of South 1st Street to FM1626, the annual growth rate was increased to 6.5% to account for the additional trip diversion. It should be noted that the background traffic growth for the Knolls at Slaughter Creek was determined separately and applied as background traffic since the subdivision is expected to double in size over the next two years. In addition, traffic from several other previously approved projects, including Phase I of Double Creek Village, was included as background traffic. Some traffic on FM 1626 was also redistributed due to the anticipated construction of Stablewood Dr.

EXISTING AND PROPOSED ROADWAYS

FM 1626 - exists as a two-lane roadway and is classified as a Major Arterial in the Austin Metropolitan Area Transportation Plan. Average daily traffic in 2003 is approximately 9,300 vehicles per day. TXDOT is developing plans to widen the road with a variable cross-section (3 to 5 lanes with shoulders) between proposed SH 45 and IH-35. However, this improvement is not yet funded. TXDOT has also committed to installing additional traffic signals along FM 1626 as traffic warrants.

Wayne Riddell Loop – provides direct access to the Knolls at Slaughter Creek Subdivision. The roadway exists and is classified as a neighborhood collector street. The 24-hour traffic count on Wayne Riddell was 1,469.

South 1st Street - The roadway exists in a four-lane divided configuration and is classified as a Minor Arterial roadway by the City of Austin Metropolitan Area Transportation Plan. The traffic count for S. 1st Street is 3,254 south of Slaughter Lane. TXDOT has funding approved to install a traffic signal at S. 1st and FM 1626.

IH-35 Southbound Frontage Road at FM 1626 – is included in the City of Austin Metropolitan Area Transportation Plan. The IH-35 Southbound Frontage Road is constructed as a 2-lane one-way roadway.

IH-35 Northbound and Southbound Frontage Roads at Onion Creek Parkway – Onion Creek Parkway is constructed with a northbound turnaround lane, a shared thru and left turn lane (northbound) and an east bound thru lane, which leads to the entrance of the Onion Creek Golf Course Community. In addition, a one westbound lane exists in order to allow traffic to turn left (south) on to the IH-35 Southbound Frontage Road.

IH-35 Northbound and Southbound Frontage Roads at Slaughter Creek Overpass – Slaughter Creek Overpass is constructed with a left turn lane (southbound) and an east bound thru lane and left turn lane (northbound). TXDOT is developing plans to reconstruct and expand the overpass and to widen the southbound frontage road to three lanes; however, this project is not yet funded. TXDOT is also committed to installing additional traffic signals along the IH-35 frontage road as traffic warrants.

Old San Antonio Road - The traffic volume for the road is 1,194 west of IH-35. The roadway is a 2-lane collector between IH-35 and FM 1327. In the Stablewood Subdivision preliminary plan, Old San Antonio Rd. is shown to be terminated in a cul-de-sac south of Charles Akins High School. The TIA did not propose any direct access to this road from the Double Creek Village site. The applicant is proposing to widen the portion of Old San Antonio Rd. south of FM 1626 to a 4-lane divided roadway, to connect with an extension of Onion Creek Parkway.

Stablewood Dr. – is part of the approved preliminary plan called Stablewood at Slaughter Creek (C8-95-0211.03). The proposed roadway would be built by the applicant as a 4-lane divided collector street, beginning at the existing intersection of Old San Antonio Road and RM 1626. It will follow the existing alignment of Old San Antonio Road for a short distance north of FM 1626 and then diverge to a parallel route and connect with IH-35 at the Slaughter Creek Overpass.

Onion Creek Parkway – currently exists east of IH-35. The applicant is proposing to extend it westward as a 4-lane collector street to a connection with Old San Antonio Rd.

TRAFFIC ANALYSIS

The impact of site development traffic on the existing area roadways was analyzed. Two time periods and travel conditions were evaluated:

- 2003 Existing Conditions
- 2005 Build-Out Conditions

INTERSECTION LEVEL OF SERVICE (LOS)

The TIA analyzed 8 intersections, none of which are signalized. Existing and projected levels of service are as follows with the proposed improvements mentioned in the TIA. All intersections will operate at an acceptable level with the improvements assumed in the TIA.

Intersection	2003		2005	
	AM	PM	AM	PM
Wayne Riddell/FM 1626	C	C	B	B
South First/FM 1626	C	C	A	A
Old San Antonio Rd/FM 1626	C	C	C	C
IH-35 SBFR/FM 1626	C	C	A	A
IH-35 SBFR/Onion Creek Overpass	A	A	A	A
IH-35 NBFR/Onion Creek Overpass	A	A	A	A
IH-35 SBFR/Slaughter Creek Overpass	B	B	B	B
IH-35 NBFR/Slaughter Creek Overpass	B	B	B	C

DRIVEWAY CAPACITY ANALYSIS

The table below summarizes the driveway LOS for the am and pm peak future year 2005. All driveways will operate at an acceptable level of service with the improvements assumed in the TIA.

Driveway	AM	PM
Driveway L at S. First St.	A	A
Driveway M at FM 1626	B	D
Driveway N at Stablewood Dr.	B	A

ROADWAY CAPACITY ANALYSIS

The table below summarizes the roadway level of service for the year 2005. FM 1626 will operate at an unacceptable level of service during the PM peak hour. TXDOT has agreed to widen the road to a 5-lane cross-section to mitigate this condition.

Roadway Section	AM Peak Hour	PM Peak Hour
FM 1626 between S. 1 st & IH-35	D	E
Old San Antonio Rd. between FM 1626 & Onion Creek Pkwy.	C	C

OTHER TRANSPORTATION MODES

Capital Metro bus service is available to Akins High School, which abuts the property to the north. However, for the purpose of the TIA no deductions in traffic were assumed for transit ridership.

Old San Antonio Rd. is a popular route for bicyclists. Because the developer plans to terminate the road north of FM 1626, provisions should be made to maintain a bicycle and pedestrian route through the tract. This issue should be addressed during the subdivision process at the time the street vacation is processed.

RECOMMENDATIONS

The TIA assumes that a number of improvements will be made to area roadways by the time the project is completed. Discussions between the applicant and TXDOT resulted in a commitment from TXDOT to provide many of the recommended improvements in the TIA without cost participation by the developer (see attached memo). Consequently, the developer should be subject to the following requirements:

1. Dedicate 120-feet of right-of-way and construct a 4-lane divided roadway along the general alignment of Stablewood Dr. as shown on the approved preliminary plan, between FM 1626 and the Slaughter Creek interchange at IH-35. This requirement will be addressed with the final subdivision plat on the property, and the road will be constructed with the site plan for development of the tract. The road should be completed and open to traffic prior to the issuance of any certificates of occupancy on the tract.
2. Provide exclusive left-turn lanes at all site driveways along Stablewood Drive, as well as exclusive right-turn lanes on the northbound and southbound approaches at Driveway N. This requirement will be addressed during review of the subdivision construction plans for Stablewood Drive and is subject to compliance with all ordinance requirements at that time.
3. Dedicate 70 feet of right-of-way from the centerline of FM 1626 from Old San Antonio Rd. to S. First St. This requirement will be addressed with the final subdivision plat on the property.
4. Motor vehicle access to Old San Antonio Road in its present configuration should be prohibited. A portion of Old San Antonio Road will be replaced by Stablewood Drive and realigned to connect to IH-35. Once this realignment occurs, the existing segment of Old San Antonio Rd. should be vacated from FM 1626 to Charles Akins High School. Provision should be made for continuation of bicycle and pedestrian access between Old San Antonio Rd. and FM 1626, with the location and design of the access to be approved by the Transportation, Planning, and Sustainability Department. This requirement should be addressed with the final subdivision plat on the property

5. Post fiscal surety (100%) prior to release of any site plans on the property for an exclusive southbound left-turn lane at Driveway L along South First St. Construction of the turn lane is subject to approval by the Transportation, Planning, and Sustainability Department at the time of site plan review. If approved by TPSD, the turn lane should be completed and open to traffic prior to issuance of any certificates of occupancy on the tract.
6. Provide preliminary schematic for the ultimate location and design of an upgraded Slaughter Creek Overpass on IH-35.
7. Location of driveways is subject to approval at the time of site plan review.
8. Development of this property should be limited to uses and intensities which will not exceed or vary from the projected traffic conditions assumed in the TIA, including peak hour trip generations, traffic distribution, roadway conditions, and other traffic related characteristics.
9. Submit two copies of the final version of the TIA incorporating all corrections and additions. The TIA should be submitted before third reading of the zoning.

If you have any questions or require additional information, please contact me at 974-2725.



George Zapalac
Watershed Protection and Development Review Department

CC: Bob Hamm, Wilber Smith Associates
Carol Kaml, Fiscal Surety Officer
Linda DuPriest, Bicycle and Pedestrian Coordinator